

CLAIMS

I claim:

- 1) A method of controlling a drill/driver, the drill/driver including a rotatable output shaft arranged to mount a screwdriver and screwdriver bit and a motor for rotatably driving said rotatable output shaft, providing a means for automatic periodic momentary reversals of said rotatable output shaft.
- 2) A device in claim 1 which includes a fixed duration of said automatic periodic momentary reversals.
- 3) A device in claim 1 which includes an adjustable duration of said automatic periodic momentary reversals.
- 4) A device in claim 1 which includes a fixed frequency of said automatic periodic momentary reversals.
- 5) A device in claim 1 which includes an adjustable frequency of said automatic periodic momentary reversals.
- 6) A device in claim 1 which includes a relay to achieve reversal of said output shaft.
- 7) A device in claim 1 which includes solid-state electronics to achieve reversal of said output shaft.
- 8) A device in claim 1 which includes a means to automatically change duration of said automatic periodic momentary reversals whereby the duration is based partially or entirely on trigger position.
- 9) A device in claim 1 which includes a means to automatically change duration of said automatic periodic momentary reversals whereby the duration is based partially or entirely on said motor speed.
- 10) A device in claim 1 which includes a means to automatically change duration of said automatic periodic momentary reversals whereby the duration is based partially or entirely on said rotatable output shaft speed.
- 11) A device in claim 1 which includes a means to automatically change duration of said automatic periodic momentary reversals whereby the duration is based partially or entirely on said motor current.

- 12) A device in claim 1 which includes a means to automatically change frequency of said automatic periodic momentary reversals whereby the frequency is based partially or entirely on trigger position.
- 13) A device in claim 1 which includes a means to automatically change frequency of said automatic periodic momentary reversals whereby the frequency is based partially or entirely on said motor speed.
- 14) A device in claim 1 which includes a means to automatically change frequency of said automatic periodic momentary reversals whereby the frequency is based partially or entirely on said rotatable output shaft speed.
- 15) A device in claim 1 which includes a means to automatically change frequency of said automatic periodic momentary reversals whereby the frequency is based partially or entirely on said motor current.
- 16) A device in claim 1 which includes a switch to engage and disengage said automatic periodic momentary reversals function.
- 17) A device in claim 1 which includes a means allowing said automatic periodic momentary reversals function to be engaged only when said drill/driver is in a low speed gear.
- 18) A device in claim 1 which includes a processor chip to change frequency and/or duration of said automatic periodic momentary reversals.
- 19) A device in claim 1 which includes a means to disable an automatic control of frequency and duration of said automatic periodic momentary reversals, and enable a manual control of said automatic periodic momentary reversals.
- 20) A device in claim 1 which includes a mechanical device to provide means of said automatic periodic momentary reversals.
- 21) A method of controlling a drill/driver, the drill/driver including a rotatable output shaft arranged to mount a screwdriver and screwdriver bit and a motor for rotatably driving said rotatable output shaft, providing a means for automatic periodic momentary disengagement of said rotatable output shaft.
- 22) A device in claim 21 which uses mechanical means for providing said automatic periodic disengagement of said rotatable output shaft.

- 23) A device in claim 21 which uses electric means for providing said automatic periodic disengagement of said rotatable output shaft.
- 24) A chuck assembly for a drill/driver which provides a means for an automatic periodic momentary disengagement or reversal of an output of said chuck assembly.
- 25) A battery assembly for a cordless drill/driver which provides automatic periodic momentary reversals of said battery's output polarity.
- 26) A device in claim 1 to be used for the insertion or removal of Philips head screws, or any screw types which are prone to having the bit hop out of the screw head.
- 27) A device in claim 1 which includes a shock absorption device placed inline with the gear drive section.
- 28) A device in claim 1 which includes a means to automatically change duration and/or frequency of said automatic periodic momentary reversals based partially or entirely said output shaft vertical load.